

Hanford Air Operating Permit Modification

Downgrade the status of the Hanford B-Plant Stack
from a major stack to a minor stack.

Responsiveness Summary



Department of Ecology
Nuclear Waste Program
3100 Port of Benton Blvd.
Richland, WA 99354

January 23, 2006

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RESPONSIVENESS SUMMARY

Prepared by:

Oliver Wang

Washington State Department of Ecology

Nuclear Waste Program

January 23, 2006

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If you require this publication in an alternate format, please contact the Nuclear Waste Program at 509.372.7950, or TTY (for the speech or hearing impaired) 711 or 800-833-6388.

Introduction

The Washington State Department of Ecology (Ecology) encouraged the public to comment on the downgrade of the status of the Hanford B-Plant Stack from a “major stack” to a “minor stack” during a public comment period held October 10 through November 9, 2005. The US Department of Energy (USDOE) requested this change after determining that potential emissions from the Hanford B-Plant Stack will not exceed the maximum exposure limits set for minor stacks. This change will reduce the required level of monitoring from continuous to a single four-week sample a year.

The following responsiveness summary addresses public comments received during the public comment period. Ecology received two comments on the proposed permit change. The comments focused on the following issues:

- Accuracy of amount of emissions stated in permit.
- Providing certified data for one year to reflect lower emissions.

Responsiveness Summary

Comment #1: I believe item 1) under “Why must the Hanford Site comply with the AOP?” is in error. Item 1) states “actual emissions of sulfur dioxide, nitrogen oxides and carbon monoxide exceed 100 tons per year.” I believe the potential emissions of sulfur dioxide, regulated nitrogen oxides (note nitrous oxide is not regulated) and carbon monoxide exceed 100 tons per year. I don't believe the "actual emissions" of these exceed 100 tons per year. The annual 400-105 report should bear this out.

Response: Ecology Agrees. You are correct about the fact that the "actual emissions" of SO₂ (sulfur dioxide), CO (carbon monoxide) and regulated NO_x (nitrogen oxide) in 2004 is less than 100 tons per year (tpy). The standard language in the announcement was established in 2001 when the Hanford Air Operating Permit was issued. At that time, we thought the standard language would be valid for a long period. Emissions of these criterion air pollutants is one of the conditions that require Hanford to have an AOP. Since the "actual emissions" may fluctuate above or below 100 tpy, we will use "potential-to-emit" to replace "actual emissions" in all future announcements. The change is consistent with WAC 173-401-200(19) concerning the definition of "major source."

Comment #2: I would suggest a certified monitoring system that would provide certified data for a minimum period of one year that reflects the lesser emissions. I would also suggest a certifiable system that would monitor the contents of B-Plant to assure no additional material be stored there in which could alter the rate and/or quality of emissions. In addition, you should consider a verifiable and trackable system of cost involved/saved, since I think this amounts to a contract change – for which consideration is generally a factor.

Response: Ecology offers the following explanation. We re-evaluated the proposed change in the status of B-Plant, the magnitude of the radioactive source term, the length of sampling used to propose the downgrade, and recent knowledge of HEPA filter loading that could possibly indicate the potential for changes in building conditions that could still cause emissions in the range of a “major” source under WAC 246-247 and 40 CFR 61. As a result, we agree that additional sampling and study is required prior to allowing this major emission unit to be downgraded.

Summary of Public Involvement Actions

No workshops or hearings were held for this comment period. A focus sheet was mailed to approximately 900 highly interested members of the public. An email to the Hanford Listserve announced the comment period and directed members of the public to the Ecology website for more information. Notice of the comment period was placed in the Ecology events calendar. A public announcement classified advertisement was placed in the Tri-City Herald on the day the comment period started.

Attachments

Comment letters
Public Announcement Classified Ad
Focus Sheet
Final Letter of Decision

Public Announcement Classified Advertisement

Tri-City Herald, Sunday, October 9, 2005

**Comment Period for Hanford Air Operating Permit Modification
October 10 – November 9, 2005**

You are invited to comment on a draft Air Operating Permit modification to downgrade the status of the B-Plant Stack from a major stack to a minor stack. The US Department of Energy (USDOE) requested this change after determining that potential emissions from the Hanford B-Plant Stack will not exceed the maximum exposure limits set for minor stacks. The B-Plant is currently decommissioned, decontaminated, and stabilized in preparation for permanent closure. It has an active air circulation system, and does take up some contamination that is released through the stack. The permit change will reduce the required level of monitoring from continuous to a single four-week sample a year.

A 30-day public comment period runs from October 10 – November 9, 2005. No public hearing is planned at this time; however, Ecology will consider requests for a hearing. To request a hearing please contact Tanya Williams, 509.372.7883 or tawi461@ecy.wa.gov.

Copies of the permit are available for review by appointment at the Department of Ecology Richland Office Library, 3100 Port of Benton Blvd., Richland, WA. 509.372.7920.

Contact Douglas Hendrickson to make a comment or to receive more information. Please submit all comments in writing.

3100 Port of Benton Blvd.
Richland, WA 99354
509.372.7983 phone
509.372.7971 fax
dohe461@ecy.wa.gov

All comments received during the public comment period will be considered and responded to before Ecology issues the final permit decision on whether to approve modification of this portion of the permit. The permit holder is USDOE - RL, P.O. Box 550, Richland, WA 99352.

Comment #1

Received by email on Saturday, October 8, 2005

Oliver,

I received the Hanford Site AOP modification announcement for B Plant downgrade in today's mail. I believe item 1) under "Why must the Hanford Site comply with the AOP?" is in error. Item 1) states "actual emissions of sulfur dioxide, nitrogen oxides and carbon monoxide exceed 100 tons per year". I believe the potential emissions of sulfur dioxide, regulated nitrogen oxides (note nitrous oxide is not regulated) and carbon monoxide exceed 100 tons per year. I don't believe the "actual emissions" of these exceed 100 tons per year. The annual 400-105 report should bear this out.

Thanks for putting me on your mailing list.

Bill Green



Central Files _____
File Name: _____
Cross Reference: _____

AIR 06-106

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

OFFICE OF RADIATION PROTECTION

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JAN 17 2006

Department of Ecology
NWP - Richland

COPY FOR YOUR
INFORMATION

January 12, 2006

Mr. Allan Panitch
P.O. Box 99387
Seattle, Washington 98199

Dear Mr. Patnitch:

Reference: Your letter dated October 10, 2005, Downgrade Status of Hanford B-Plant Stack

In your letter you provided the following comments on the proposed downgrade to B-Plant in the Hanford Air Operating Permit.

"Before permitting any change, evidence should be required. What evidence?

I would suggest a certified monitoring system that would provide certified data for a minimum period of one year that reflects the lesser emissions. I would also suggest a verifiable system that would monitor the contents of B-Plant to assure no additional material be sorted there in which could alter the rate and/or quality of emissions. In addition, you should consider a verifiable and trackable system of cost involved/saved, since I think this amounts to a contract change – for which consideration is generally a factor."

In response to your comment, we re-evaluated the proposed change in the status of B-Plant, the magnitude of the radioactive source term, the length of sampling used to propose the downgrade, and recent knowledge of HEPA filter loading that could possibly indicate the potential for changes in building conditions that could still cause emissions in the range of a "major" source under WAC 246-247 and 40 CFR 61. As a result, we agree that additional sampling and study is required prior to allowing this major emission unit to be downgraded.



Mr. Allan Panitch

AIR 06-106

January 12, 2006

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Thank you for your interest and concern. If you have any additional questions or comments, please feel free to contact me at (360) 236-3261.

Sincerely,



Allen W. Conklin, Supervising Health Physicist
Air Emissions and Defense Waste Section

cc: Oliver Wang, Ecology
Davis Zhen, EPA
Earl Fordham, DOH



**COPY FOR YOUR
INFORMATION**

AIR 06-102

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

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Department of Ecology
NWP - Richland

January 6, 2006

Mr. Keith Klein, Manager
U. S. Department of Energy
Richland Operations Office
P. O. Box 550 MSIN A 7-50
Richland, Washington 99352

Dear Mr. Klein:

The public review process for the Air Operating Permit significant modification regarding the Department of Energy's application to downgrade the B-Plant stack from a major to a minor emission unit, is complete. After the public comment and further consideration, the Department of Health has determined that the 296-B-1 stack must remain a major emission unit subject to the requirements of WAC 246-247 and 40 CFR 61 Subpart H.

The basis for this decision and the subsequent required actions is as follows:

- Based on the Notice of Violation for 296-S-21, there is concern that there may be control devices up stream of the sample collected for technically supporting the downgrade of the 296-B-1 stack. Please provide a facility review to supplement the previous information provided to support the downgrade assumptions, including any controls for sources that empty into the canyon.
- Information provided in the ALARACT demonstration is of concern. The wide variation in annualized dose rates over the period of record indicates that the system may not be as stable as previously thought. To alleviate this concern, approval of the downgrade will be held until it is adequately demonstrated that the 296-B-1 is a minor source. A method that would be acceptable to the state would be destructive analysis of the pre-filters at the next change-out that also takes into consideration all upstream control devices.



Mr. Keith Klein
AIR 06-102
January 6, 2006
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When the above actions are completed, DOH will reconsider the request. Until that time, the 296-B-1 stack must remain a major emission unit subject to the requirements of WAC 246-247 and 40 CFR 61 Subpart H.

If there are any questions, please contact me at (360) 236-3261.

Sincerely,



Allen W. Conklin, Supervising Health Physicist
Air Emissions and Defense Waste Section

cc: Davis Zhen, EPA
Earl Fordham, DOH
Oliver Wang, Ecology
Doug Hendrickson, Ecology
Mary Jarvis, DOE-RL

Hanford Air Operating Permit Modification

Topic: Downgrade the status of the Hanford B-Plant Stack from a major stack to a minor stack.

The Washington State Department of Ecology (Ecology) is considering a request to modify the Hanford Air Operating Permit (AOP). The modification will downgrade the status of the Hanford B-Plant Stack from a "major stack" to a "minor stack." The US Department of Energy (USDOE) requested this change after determining that potential emissions from the Hanford B-Plant Stack will not exceed the maximum exposure limits set for minor stacks. This change will reduce the required level of monitoring from continuous to a single four-week sample a year.



Inside the B-Plant during deactivation in 1996.
(USDOE Digital Archive #1002439)

The US Environmental Protection Agency and the Washington State Department of Health have approved a Notice of Construction for the B-Plant Stack downgrade. The permit holder is USDOE - RL, P.O. Box 550, Richland, WA 99352. Ecology will submit a draft permit modification for **public comment from October 10 to November 9, 2005.**

Tell Me More

What is the Hanford B-Plant? The Hanford B-Plant was originally used to separate plutonium and uranium for fuel reprocessing. Later, the plant was used to separate cesium and strontium from boiling waste tanks. It is now decommissioned, decontaminated, and stabilized in preparation for permanent closure. The B-Plant has an active air circulation system, and does take up some contamination that is released through the stack.

At the time the original Air Operating Permit was issued, the B-Plant was still considered operational. The stack was given a "major stack" status due to lack of air test data to conclude otherwise. The air testing has now been completed and the stack emissions fall into the status of a "minor stack."

Why must the Hanford Site comply with the AOP? The Hanford Site has a sitewide Air Operating Permit because 1) actual emissions of sulfur dioxide, nitrogen oxides, and carbon monoxide exceed 100 tons per year, 2) there are actual emissions of radionuclides, and 3) the cumulative emissions of hazardous air pollutants exceed 25 tons per year.



Technicians examine an air sampler.
(USDOE digital archives #2014499)

How do I view related documents? The Air Operating Permit and Statement of Basis can be viewed online at <http://www.ecy.wa.gov/programs/nwp/commentperiods.htm>. During the comment period, the permit modification is available for public review Monday - Friday, 9 a.m. - 12 p.m. and 1 p.m. - 4 p.m. at the Department of Ecology Nuclear Waste Program Library located at 3100 Port of Benton Blvd., Richland, WA. To make an appointment to review the documents please call 509.372.7920.

If you require special accommodations or need this document in an alternate format, please contact Nuclear Waste Program at 509.372.7883. For persons with a speech or hearing impairment call 711 for relay service or 800.833.6388 for TTY.

Comment Period

October 10 - November 9, 2005

Hanford Air Operating Permit Modification

Topic: Downgrade the status of the Hanford B-Plant Stack from a major stack to a minor stack.

Tell Us What You Think!

You are invited to participate in the decision to modify the Hanford Air Operating Permit. Public comments are critical to Ecology's decision making process. Look inside to learn more about why downgrading the status of the Hanford B-Plant Stack from a major stack to a minor stack is an important permit modification. See below to learn more about how you can comment on this permit modification.



Hanford B-Plant. (USDOE Digital Archives #2001808)

How do I make a comment? Contact Douglas Hendrickson to make a comment or to receive more information. Please submit all comments in writing.

3100 Port of Benton Blvd.
Richland, WA 99354
509.372.7983 phone
509.372.7971 fax
dohe461@ecy.wa.gov

No public hearing is planned at this time; however, Ecology will consider requests for a hearing. All comments received during the public comment period will be considered and responded to when Ecology issues the final permit decision on whether to approve modification of the permit. Please contact Tanya Williams at 509.372.7883 or tawi461@ecy.wa.gov to request a public hearing.